

ABSTRACT

An image system includes a beam generator and a screen having a region with an adjustable brightness. The beam generator directs first and second electromagnetic beams onto the region. The first beam changes the brightness of the region according to a first polarity and the second beam changes the brightness of the region according to a second polarity. Such an imaging system can generate a video frame on a projection screen such that each pixel of the frame is "on" for the same or approximately the same amount of time as each of the other pixels. This technique prevents portions of the image from appearing visibly dimmer than other portions. It also allows the persistence of the screen regions to be relatively long, e.g., longer than the frame rate, and thus allows the screen to display/project relatively high-quality video frames.